

REMARKS

This is a complete and timely response to the non-final Office Action mailed February 7, 2007. Upon entry of the foregoing amendments, claims 1-22 are pending in the application. Claims 1, 9, 13 and 17 have been amended. The subject matter of amended claims 1, 9, 13 and 17 can be found in the originally filed specification in at least FIG. 9 and FIG. 10 and the related detailed description. Consequently, no new matter is added to the present application.

In light of the foregoing amendments and following remarks, Applicants request reconsideration of the application and pending claims.

Claim Rejections Under 35 USC § 103 – Claims 1-22

A. Statement of the Rejections

Claims 1-22 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Application Publication No. 2005/0002032 to Wijntjes *et al.*, hereafter *Wijntjes* in view of U.S. Patent No. 4,958,072 to Hofler *et al.*, hereafter *Hofler*.

B. Discussion of the Rejections

For a claim to be properly rejected under 35 U.S.C. § 103, “[t]he PTO has the burden under section 103 to establish a *prima facie* case of obviousness. In order to make a proper *prima facie* case of obviousness; three basic criteria must be met, as set forth in MPEP § 706.02(j). First, there must be some suggestion or motivation; either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references, when combined, must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Applicant’s disclosure.

Applicants’ independent claims 1, 9 and 17, as amended, each recite at least one element or feature that is not disclosed, taught or suggested by the proposed combination.

Applicants' independent claim 1, as amended, includes at least "a first determination module to identify a quadrant of said movable polarizing code element based on how much illumination passes through a second portion of said movable polarizing code element, the first determination module responsive to a single illumination source that emits light that is directed at and unaltered before encountering the movable polarizing code element and thereafter unaltered before encountering a third illumination detector." At least this element is not disclosed, taught or suggested by the proposed combination.

In contrast with Applicants' claimed polaroid encoder system, *Wijntjes* discloses a number of various systems that include one or more fixed polarizers (i.e., analyzers 116) interposed between a rotating polarizer and one or more light detectors. (See *Wijntjes*, FIGs. 1, 4-9 and 10A). Several embodiments disclose a light path that encounters a reflective polarizer or a transmissive polarizer before the light encounters a light detector. The altered light paths, such as those taught by *Wijntjes*, do not disclose, teach or suggest the claimed first determination module that is responsive to a single illumination source that emits light that is directed at and unaltered before encountering the movable polarizing code element and thereafter unaltered before encountering a third illumination detector.

Also in contrast with Applicants' claimed polaroid encoder system, *Hofler* shows a light source 22 that encounters coupler 23, coupler 24, demux 26, and coupler 28 before the emitted light encounters code wheel 52. A light path that includes couplers and a demux alters the emitted light before the light encounters the code wheel. Altered light paths, such as those taught by *Hofler*, do not disclose, teach or suggest Applicants' claimed the claimed first determination module that is responsive to a single illumination source that emits light that is directed at and unaltered before encountering the movable polarizing code element and thereafter unaltered before encountering a third illumination detector.

Accordingly, the proposed combination does not lead one of ordinary skill to produce Applicants' claimed polaroid encoder system for at least the reason that both *Wijntjes* and *Hofler* teach away from Applicants' claimed first determination module. As shown above, both *Wijntjes* and *Hofler* teach the use of altered light paths (before and after a movable polarizing code element, whereas Applicants' claimed system

does not require fixed, reflective or transmissive polarizers, couplers and a demux to adjust the light path before encountering an illumination detector.

Thus, the proposed combination fails to disclose, teach or suggest Applicants' claimed system, which includes at least "a first determination module to identify a quadrant of said movable polarizing code element based on how much illumination passes through a second portion of said movable polarizing code element, the first determination module responsive to a single illumination source that emits light that is directed at and unaltered before encountering the movable polarizing code element and thereafter unaltered before encountering a third illumination detector." As a result, the proposed combination fails to establish a *prima facie* case of obviousness with respect to Applicants' amended claim 1. Consequently, Applicants' claim 1 is allowable over the proposed combination and the rejection of claim 1 under 35 U.S.C. § 103(a) should be withdrawn.

For at least the reason that claims 2-8 depend directly or indirectly from claim 1 and include all the features of independent claim 1, the rejection of claims 2-8 under 35 U.S.C. § 103(a) should also be withdrawn. *In re Fine*, 837 F.2d 1071, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1998).

Applicants' independent claim 9, as amended, includes at least "an illumination source arranged such that emitted light is directed at and unaltered before encountering the movable polarizing code element and thereafter unaltered before encountering a third illumination detector." At least this feature of the illuminating step is not disclosed, taught or suggested by the proposed combination.

In contrast with Applicants' claimed method and as described above, *Wijntjes* discloses a number of various systems that include one or more fixed polarizers interposed between a rotating polarizer and one or more light detectors. Several embodiments disclose a light path that encounters a reflective polarizer or a transmissive polarizer before the light encounters a light detector.

Also in contrast with Applicants' claimed method and further described above, *Hofler* shows a light source 22 that encounters coupler 23, coupler 24, demux 26, and coupler 28 before the emitted light encounters code wheel 52. Thus, *Wijntjes* and *Hofler* teach the use of altered light paths before and after a movable polarizing code element, whereas Applicants' claimed method recites at least "an illumination source

arranged such that emitted light is directed at and unaltered before encountering the movable polarizing code element and thereafter unaltered before encountering a third illumination detector.” Accordingly, the proposed combination fails to disclose, teach or suggest Applicants’ claimed method which includes at least “illuminating said movable polarizing code element comprising a first concentric code, a second concentric code and a set of quadrants, the first and second concentric codes in contact with one another over one of the quadrants of said movable polarizing code element, said illuminating comprising an illumination source such that emitted light is directed at and unaltered before encountering the movable polarizing code element and thereafter unaltered before encountering a third illumination detector.” As a result, the proposed combination fails to establish a *prima facie* case of obviousness with respect to Applicants’ amended claim 9. Consequently, Applicants’ claim 9 is allowable over the proposed combination and the rejection of claim 9 under 35 U.S.C. § 103(a) should be withdrawn.

For at least the reason that claims 11-16 depend directly or indirectly from claim 9 and include all the features of independent claim 9, the rejection of claims 11-16 under 35 U.S.C. § 103(a) should also be withdrawn. *See In re Fine, supra.*

Applicants’ independent claim 17, as amended, includes at least “means for illuminating comprising an illumination source such that emitted light is directed at and unaltered before encountering the movable polarizing code element and thereafter unaltered before encountering a third illumination detector.” At least this feature is not disclosed, taught or suggested by the proposed combination.

In contrast with Applicants’ claimed system and as described above, *Wijntjes* discloses a number of various systems that include one or more fixed polarizers interposed between a rotating polarizer and one or more light detectors. Several embodiments disclose a light path that encounters a reflective polarizer or a transmissive polarizer before the light encounters a light detector.

Also in contrast with Applicants’ claimed method and further described above, *Hofler* shows a light source 22 that encounters coupler 23, coupler 24, demux 26, and coupler 28 before the emitted light encounters code wheel 52. Thus, *Wijntjes* and *Hofler* teach the use of altered light paths before and after a movable polarizing code element, whereas Applicants’ claimed system recites at least “an illumination source

such that emitted light is directed at and unaltered before encountering the movable polarizing code element and thereafter unaltered before encountering a third illumination detector.” As a result, the proposed combination fails to establish a *prima facie* case of obviousness with respect to Applicants’ amended claim 17. Consequently, Applicants’ claim 17 is allowable over the proposed combination and the rejection of claim 17 under 35 U.S.C. § 103(a) should be withdrawn.

For at least the reason that claims 18-22 depend directly or indirectly from claim 17 and include all the features of independent claim 17, the rejection of claims 18-22 under 35 U.S.C. § 103(a) should also be withdrawn. *See In re Fine, supra.*

CONCLUSION

For at least the reasons set forth above, Applicants respectfully submit that pending claims 1-22 are allowable over the cited art of record and the present application is in condition for allowance. Accordingly, a Notice of Allowance is respectfully solicited. Should the Examiner have any comments regarding the Applicants’ response, Applicants request that the Examiner telephone Applicants’ undersigned attorney.

Respectfully submitted,

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